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ABSTRACT

Although computers have become an important part of the secondary education program, they have not been widely adopted in secondary school arts programs. This is due in part to teacher resistance and/or negative attitudes toward the use of computers to teach art. Teacher insecurity and concern for the loss of student creativity are usually based on out of date ideas about computer technology and software availability. The student's creativity may actually be increased by the computer's ability to easily alter images on the screen before a final design solution is reached. In addition, teachers should realize that introducing computers into the art curriculum will not replace good teaching methods also in place, but can instead be used to stimulate learning, creativity, and the organization and presentation of art facts and concepts. Computers in art can function both as a teaching tool and a new art medium. Used as an art medium, the computer can be used to develop skills in aesthetic decision making. Computer-assisted instruction (CAI) may not be suitable for all phases of teaching art or any other subject, but can nonetheless be used to enhance many of the aspects of teaching art. The students of creative art teachers stand to gain a great deal from CAI. (8 references) (EW)

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COMPUTERS IN THE SECONDARY SCHOOL ART CURRICULUM: PAINTING A PICTURE OF EFFECTIVE TEACHING.

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A Position Paper Presented at the
1988 Annual Meeting of the
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COMPUTERS IN THE SECONDARY SCHOOL ART CURRICULUM: PAINTING A PICTURE OF EFFECTIVE TEACHING.

The computer age is not something that is coming to our schools in the near future. It has arrived and it is here to stay (McCulloch, 1984). Computers have already greatly affected the teaching profession and they will continue to influence the ways in which the educational process is viewed in the years ahead. Glorious predictions have been made concerning the benefits of the computerization of education. While not all of these claims have been realized, computer-assisted instruction has shown many positive results. However, the majority of secondary school art programs have not adopted this technology.

Most teachers wish to provide the best possible learning environment for their students. If technology can be used to more effectively accomplish the goals of instruction, what educator would not want to take advantage of it (Jeffers, 1986)? Still, many art teachers are not convinced of the appropriateness of computer-assisted instruction in the general art curriculum. Since computers have become an integral part of American society and its educational system, art educators cannot continue to ignore them (McCulloch, 1984).

Many art teachers seem to have negative attitudes concerning the use of computers to teach art. Some of the factors which have caused teachers to develop these

negative views are: (1) doubts about their own ability to work with technology, (2) fear of a loss of student creativity in the artistic process, and (3) the high cost of adding computers to their curriculum. Each of these concerns can be easily overcome when art educators approach the use of computers with an open mind and are willing to investigate ways they can be effectively used in art instruction.

Teacher insecurity and the concern for a loss of student creativity are usually based on out-dated ideas about computer technology and software availability. It is no longer necessary to control computers solely with the use of a keyboard in order to create works of art. Using a device know as a "mouse" and a menu-driven program, the novice can quickly become adept at computer graphics. The students' creativity may actually be increased due to the computer's ability to easily alter images on the screen before a final design solution is reached.

The cost of adding computer technology to the art curriculum is probably less than most teachers would expect. Several models are now available at very moderate prices. In many cases, computers which are already in the school can be upgraded to handle graphics. Software and peripherals for art production are also available at reasonable costs. Even when budgets are

tight special funds may be available to purchase new equipment or to initiate new programs.

The first thing that art teachers should realize is that introducing computers into the secondary school art curriculum will not mean an end to the good teaching methods already in place (McCulloch, 1984). Instead, the new technology can function to enhance the students' interest and creative potential. The art teachers in schools today have an opportunity to use this new technology to stimulate learning and creativity in their students. In addition, they can use the computer to more precisely organize and present art facts and concepts which are basic parts of the art curriculum (DiBlasio, 1983).

Art educators should always keep in mind that the computer is both a new teaching tool and a new art medium. Serving in each capacity it can function in a variety of ways in the art curriculum. As a teaching tool the computer can be used to organize and present information to students such as the definitions of art terms, facts about materials and processes, and historical data concerning artists or works of art (DiBlasio, 1983). Art teachers can also use the computer to effectively demonstrate design concepts to students. Multiple examples of the use of lines, shapes, textures, and tones can be quickly illustrated.

As an art medium computer-generated images allow students to try several different solutions to a design problem in a shorter period of time. Colors and shapes can be modified more rapidly and easily using the computer than with traditional art materials. The images can then be saved for future retrieval at a time when the student and teacher can discuss which is the most appropriate solution for a particular design problem (Ettinger & Rowland, 1985).

In addition to developing skills in aesthetic decision making, the student is freed from the pressure of knowing that their grade on an assignment is dependent upon the outcome of a single finished art work. By allowing students to make mistakes which can be easily corrected on the computer, perhaps they can be more creative in their artistic decision making. When students are freed from the anxiety of failure, they can eagerly experiment with the principles of composition and design on a trial and error basis. At the same time the students get immediate feedback on their work. This, according to most educators and researchers, creates a more effective learning environment (Jeffers, 1986).

When used as an art medium, computer-generated images require the use of the same basic elements of art and principles of composition as any other art medium. As with the more traditional art forms these elements and principles must be manipulated in an effective manner if

the outcome is to be successful (Gartel, 1985). The advantage of using the computer to generate images is that time and expense are reduced considerably when comparing it to trying multiple solutions to a design problem using conventional art processes and materials. In addition, computer-generated images generally require cognitive solutions for each aspect of the design. Most traditional art materials, on the other hand, respond directly to simple physical manipulations. The intellectual meditation involved in producing computer art may have an advantage in developing the analytical thinking skills of students (Sasowsky, 1985).

The most common ways in which the public comes into contact with the art products of computers are the rich graphic images created for print and video display (O'Connell, 1985). It would be safe to assume that most art teachers are aware of the current use of computers to create graphic images for the fields of advertising and mass communication. The students are also aware of the computer's image-producing possibilities through their visual experiences with video games and television graphics. Most students are eager to try their hand at this new art tool (Gartel, 1985). That fact alone should be enough to encourage art teachers to pursue the use of computers in their classes.

Computer-assisted instruction is not suitable for all phases of teaching art or any other subject. Art

students will always need the teacher's help in mastering traditional art media and in making informed aesthetic decisions. Nonetheless, the computer can be used to enhance many of the aspects of teaching art. Art educators can no longer afford to ignore the many possibilities of computers for art instruction; to do so would be naive (Sawicke & White, 1986). It is time for art educators to embrace this new technology. It has already been demonstrated that the computer has great potential as an art medium and as an aide to instruction. The students of creative art teachers stand to gain a great deal from computer-assisted art instruction.

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